

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YNGVE K. WALLSTEDT,
KNUT M. ALMGREN, and
CLAES H. ANDERSSON

Appeal No. 1999-0888¹
Application No. 08/061,228

HEARD: April 12, 2001

Before HAIRSTON, GROSS, and LEVY, Administrative Patent Judges.
GROSS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 through 6 and 8. Claim 7 has been cancelled, and claims 9 through 13 have been indicated allowable.

¹ On the Notice of Hearing mailed February 16, 2001, the appeal number was listed incorrectly as 1999-0880. The correct appeal number is 1999-0888, as indicated above.

Appeal No. 1999-0888
Application No. 08/061,228

Appellants' invention relates to a method for intracell handover and channel allocation in cellular phone systems. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A method of reducing interference in a radio communication system having more than one mobile station and more than one fixed station, said method comprising:

determining when a first call is interfering with a second call; and

handing off the first call to another channel to reduce interference in the second call when it has been determined that the presence of the first call on the same frequency as the second call causes the interference in the second call despite the quality of the first call being of sufficient quality to not warrant hand off.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Ekusa JP 5-110510 Apr. 30, 1993
(Japanese Kokai Patent Publication)

Hakan Andersson et al., "Adaptive Channel Allocation in a TIA IS-54 System," IEEE Vehicular Technology Society 42nd VTS Conference Frontiers of Technology, May 1992, pp. 778-781. (Andersson)

Appellants' admitted prior art at pages 1-2 of the specification (AAPA)

Appeal No. 1999-0888
Application No. 08/061,228

Claims 1 and 6² stand rejected under 35 U.S.C. § 103 as being unpatentable over AAPA in view of Ekusa.

Claims 2 through 5 and 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over AAPA in view of Ekusa and Andersson.

Reference is made to the Examiner's Answer (Paper No. 31, mailed January 7, 1998) for the examiner's complete reasoning in support of the rejections, and to appellants' Brief (Paper No. 30, filed October 14, 1997) and Reply Brief (Paper No. 32, filed March 9, 1998) for appellants' arguments thereagainst.

OPINION

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellants and the examiner. As a consequence of our review, we will reverse the obviousness rejections of claims 1 through 6 and 8.

The examiner states (Answer, page 4) that AAPA discusses intracell handoff techniques for cellular telephone systems,

² We note that claim 6 depends from claim 3 and, therefore, includes all of the limitations of claim 3. It is unclear to us how claim 3 but not claim 6 can require Andersson in the rejection.

but "fails to show the handoff techniques comprising the step of handing off a first call to another channel if the first call is interfering with the second call." The examiner turns to Ekusa to cure the deficiency of AAPA, asserting (Answer, page 4) that "Ekusa teaches ... the step of handing off a first call to another channel if the first call is interfering with the second call wherein the first call having the same frequency with the second call despite the quality of the first call being sufficient quality to not warrant hand off." The examiner's motivation for combining the two disclosures is "to obtain the sufficient channel for the mobile unit" (see Answer, page 4).

Appellants explain (Brief, page 10) that in Ekusa, the call experiencing interference is the one that changes channels, much like the prior art described in AAPA. In other words, Ekusa does not teach handing off to another channel the call causing the interference, as asserted by the examiner. Upon reading Ekusa we agree with appellants that Ekusa fails to teach the claim limitations lacking from AAPA.

The examiner argues (Answer, pages 6-7) that when a first call interferes with a second call, the two calls actually

interfere with each other. Accordingly, the examiner takes the position that each of the two calls interferes and each is interfered with, so that it makes no difference which call is handed off to another frequency. This line of reasoning is incorrect, and completely misses the point of the invention. If a first call has a strong signal and a second call has a weak signal, the first call would interfere significantly with the second call, whereas the second call would have little to no effect on the first call. Therefore, appellants' claimed invention requires the first call, the strong signal that causes the interference, to change channels, since the second call, having a weak signal, may not be able to change channels. Thus, the examiner has failed to establish a prima facie case of obviousness, and we cannot sustain the rejection of claim 1 and its dependent claim 6.

Regarding the rejection of claims 2 through 5 and 8, the examiner adds Andersson to the primary rejection for a suggestion to check the interference levels on one time slot in the downlink and on all time slots in the uplink. However, claims 2 through 5 and 8 depend from claim 1 and include all of the limitations thereof, and Andersson fails to cure the

Appeal No. 1999-0888
Application No. 08/061,228

deficiency of the primary combination of AAPA and Ekusa with regard to claim 1. Consequently, we cannot sustain the rejection of claims 2 through 5 and 8.

CONCLUSION

The decision of the examiner rejecting claims 1 through 6 and 8 under 35 U.S.C. § 103 is reversed.

REVERSED

KENNETH W. HAIRSTON)	
Administrative Patent Judge)	
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)	
)	BOARD OF PATENT
ANITA PELLMAN GROSS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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